CRASC Technical Committee Meeting Minutes
Turners Falls, Massachusetts
October 5, 2004

1. Call to Order and Approval of Minutes from Previous Meetings

Mr. Jay McMenemy called the meeting to order at 10:08 a.m. and adjourned at 11:40 a.m. Mr. David MacDuffee, NMFS, was absent from the meeting. The Massachusetts Division of Marine Fisheries (MDMF) position on the Technical Committee remains vacant.

Mr. Steve Gephard motioned to approve the Minutes from the January 14, 2004 meeting. Mr. Gabe Gries seconded the motion and the Minutes were approved.

Mr. McMenemy introduced and welcomed Mr. Dan Marchant, the new Manager of the Roger Reed State Fish Hatchery.

Ms. Janice Rowan recognized and thanked Mr. Phil Herzig, Sunderland Fishery Resources Office, for his many contributions to the program over the years. He has accepted a new position and will be moving to Portland, Oregon this month.

Ms. Rowan also thanked the Historical Nipmuc Tribe for conducting the river blessing ceremony to protect and heal the fish this morning. About thirty people participated in the event held at Unity Park in Turners Falls. Reporters from The Recorder and The Republican covered the event.

2. Fish Culture Subcommittee Update

Mr. Mickey Novak summarized the Atlantic salmon egg production levels projected for each of the hatcheries:

Roger Reed State Fish Hatchery	1.5M domestic eggs
Kensington State Salmon Hatchery	2.5M domestic eggs
North Attleboro National Fish Hatchery	385K kelts eggs
Richard Cronin National Salmon Station	333K sea-run eggs
White River National Fish Hatchery	5.5M domestic eggs
Total	10.2M eggs

White River National Fish Hatchery USFWS budget constraints at the White River National Fish Hatchery are expected to reduce egg production and incubation capacity from 5.5M eggs projected (above) to 2.1M eggs for a fry production capacity of 1.5 million fry.

Richard Cronin National Salmon Station The USFWS is holding 61 sea-run Atlantic salmon (31 female: 24 male). Staff checked the fish this week and found eight ripe males. Hormone injections will be given to the remaining fish on October 8 to ensure

that all fish will spawn in the same time frame. The hormones were purchased with the CRASC funds. Spawning is scheduled on October 13 and 18. The genetics protocol calls for the collection and spawning of an additional 175 precocious parr. To date, the VTFW has collected 46 parr from the Williams River. Additional collections are scheduled. The Lamar Fish Health Unit reported that all of the sea-run salmon tested negative for the ISA virus. However, water samples indicate that that the two control fish are positive for furunculosis. This is the first time in seven years that sea-run salmon have had furunculosis at the Cronin hatchery.

Roger Reed State Fish Hatchery The MAFW has installed a new chiller at their hatchery which will enable the staff to incubate 900,000 salmon eggs full time. The first spawning date is scheduled for October 19.

Warren State Fish Hatchery The NHFG has had difficulty controlling egg incubation water temperature at their hatchery. Consequently, they have proposed to eliminate egg incubation unless and until a chiller can be obtained and installed. They are currently exploring this option.

Pittsford National Fish Hatchery The USFWS will be vaccinating and fin clipping pre-smolts at the PNFH from October 18-21. The vaccine was funded with the CRASC add. Mr. Steve Jackson solicited additional volunteer help on October 18.

After the summary, the Technical Committee asked Mr. Paul Pajak about the potential to increase incubation at the White River National Fish Hatchery. Mr. Pajak indicated that the USFWS was constrained by the budget and that proposed program cuts had been approved through the entire chain of command up to Washington. He noted that the State Directors had been apprised and had approved the plan. Asked if the USFWS would change their decision if new funds became available, Mr. Pajak noted that the Fisheries deficit region-wide is about $2M but that the Committee could pass their recommendations up through channels for possible consideration. It will be up to the USFWS Regional Director and State Directors to change the decision.

Fish Returns Ms. Rowan reported the 2004 fish returns, which were generally down except for salmon, and noted that fishway monitoring at DSI and Vernon was possible because of the CRASC add:
192,584 American shad; 61,514 sea lamprey; 279 gizzard shad; 256 striped bass; 156 blueback herring; 69 Atlantic salmon; 7 alewife; and, 1 American eel.

Fish Stocking Ms. Rowan reported a total of 7.78 million Atlantic salmon fry stocked into the basin this year. These include 6.65 million unfed fry, one million fed fry, 96 thousand smolts, and almost three thousand parr.

3. Genetics Subcommittee Update

Mr. Gephard said that Atlantic salmon spawning strategy this year is similar to that implemented in the past few years. The objective in managing and spawning the salmon brood stock is to maintain or increase genetic variability.

The fry marking program is expected to continue. In the past, ten separate family groups were maintained. Fewer groups may be required if production and stocking is reduced to 1.5 million fry at the White River National Fish Hatchery. This decision will be made once the actual production level is finalized.

Ms. Kitty Griswold provided a status update on the genetic monitoring project. This study, initiated eight-years ago, was designed to evaluate the relative success of salmon fry stocked in known locations. This year, the new CRASC funds permitted sampling of emigrating smolts in the spring. A total of 1,300 genetic samples were taken across the migratory period. The fish samples will be genotyped using a new suite of 15 very sensitive DNA microsatellites that which can be used to trace the smolt genealogy back to their grandparents. The testing is being ground-truthed against 300 known sub samples held at the White River National Fish Hatchery. PCR work is ongoing. Results are expected in February 2005. Future works will likely focus on returning sea-run salmon since these are the survivors. Beyond that, testing of archived samples from the Farmington River and other locations will have to wait for additional funding.

This spring the Sunderland Fishery Resources Office collected 128 tissue samples from blueback herring. The herring were collected in the lower Chicopee River. Baseline genetic assessment will be derived from these samples, which may represent the population bottleneck. Ms. Griswold encouraged future sampling from other locations in the basin this coming spring as a comparison for the samples on hand.

4. Salmon Studies Update

Deerfield Passage Study U.S. Gen New England, Inc. continued to radio-tag all sea-run Atlantic salmon released above the Holyoke dam. These releases are part of a study to determine the need for upstream passage on the Deerfield River. This spring six adults were tagged. The tag in one adult failed immediately precluding us from tracking the fish after release. Another tagged salmon doubled-back to the Westfield River and was subsequently released upstream in that system. Three adult salmon were monitored in the Deerfield River throughout the summer. A sixth salmon was located in the Connecticut River, near the Ammonoosuc River, Wells River and Dodge Falls, which is just about as far north as a salmon can migrate in this watershed.

Index Site Assessments Mr. McMenemy reported that high water precluded a complete assessment at all index sites in Vermont. However, ¾ of the sites were surveyed and results indicate the 0+ and 1+ parr numbers were either average or above average and size was above average this year. Mr. Steve Roy indicated that the USFS was able to sample all sites and size results were similar to those reported by the VTFW.

The numbers of surviving pre-smolts looked good. Mr. Gephard said that the CTDEP was still sampling sites but initial results look really good. In Southern New Hampshire, the number and size of surviving salmon is above average and sampling will be completed shortly. Mr. Slater noted that the CRASC add enabled the MAFW to sample fish this year (there was no staff to do the work last year). Average or better numbers of salmon were observed and many streams contained three year classes (including more 2+ year-class salmon) which is a bit unusual.

4+ Smolt Mr. Gephard reported a surprise about the smolt-age of one of the returning adult sea-run Atlantic salmon. The age is calculated based on a reading of the annuli on the scale. In this case, this adult grew from a four year old smolt. It is very rare for smolts in this basin to be so old though some, of the same age, have been seen in the Merrimack River basin in the past.

Smith Brook Study Mr. Steve McCormick provided a summary of recent work completed in the six-year Smith Brook study. Last fall, large pre-smolt salmon were observed in the brook but they were not numerous. This spring, the smolts migrated a week earlier than in the past possibly because it was the warmest spring recorded in the course of the study. Survival rate was about average at 41%. However, smolt recruitment was only about 21%. The difference between survival and recruitment can be explained by the existence of non-migrating, precocious, male parr. Fall tagging will begin next week.

Smolt Estimate Study Mr. Bob Stira, Northeast Generation Services, reported that 78,000 smolts +/- 41,000 smolts passed the Holyoke dam this spring. The estimate was higher than last year but the confidence level was also high due to the influence of high flows which reduced the number marked and recaptured. The study has been conducted cooperatively for multiple years by Northeast Generation Services, USFWS, Holyoke Gas & Electric and Greenfield Community College. Mr. Stira expects to continue the smolt estimate study next year.

5. Fish Passage Subcommittee Update

Mr. John Warner reported on the status of various fish passage projects in the Connecticut River basin:

Holyoke Fishway Renovations mandated in the relicensing agreement are underway. The fishlift towers have been demolished, the flume is opened, and a new counting window has been cut. The full-depth louver looks good. Holyoke Gas & Electric reports that work is on schedule for a spring completion. Mr. Warner agreed to set-up a tour for Technical Committee members, folks who haul shad and Conte Anadromous Fish Research Center staff sometime in early April 2005.

Turners Falls Fishway Research on improving the shad passage efficiency at the Turners Falls dam has focused on the gatehouse ladder and entrance. The Conte Anadromous Fish Research Center and Northeast Generation Services designed and

deployed an experimental entrance that passed 40-50% of the shad verses 7-10% at the old entrance. In 2005, efforts will be made to replicate and improve on this success.

Fifteen Mile Falls U.S. Gen New England, Inc. installed and ran a new smolt sampler at the Moore dam this past spring. The test was delayed while the sampler was installed and, as a consequence, may have missed the early part of the emigration. Hatchery and wild smolts were radio-tagged and tracked. Data show poor passage for the hatchery smolts and better passage for the wild smolts.

Russell Paper Mill The owner of this hydro project on the Westfield River has continued to pursue re-starting this project.

6. Shad Studies Update

Mr. Caleb Slater reported that shad passage at Holyoke was just below the ten-year average this year. However, he expressed some concern that shad passage was down at DSI on the Westfield River and at Turners Falls on the mainstem Connecticut River. He noted that research is ongoing to improve shad passage at the Turners Falls dam.

In 2004, cooperators transferred 410 shad from the Holyoke fishlift to the Ashuelot River, and 352 shad from Holyoke to the mainstem Connecticut River above the Vernon dam. An additional 94 shad were transferred from Holyoke to the Sunderland bridge, the result of an emergency release after truck brakes failed.

Next year, the role of the USFWS Sunderland Fishery Resources Office is expected to be greatly diminished since staff vacancies are not expected to be filled. The reconstruction of the site at Holyoke should help to accommodate more trucks/day. It is possible that the USFWS shad trucks could be made available to cooperators for transferring fish but this would have to be documented in agreements and further negotiated with respect to operational details.

The passage of very low numbers of blueback herring at the Holyoke dam was of even greater concern. In 2004, cooperators transferred 227 blueback herring from the lower Chicopee River to the Ashuelot River. No herring were transferred to the Westfield River due to lack of herring on collection dates. Evaluation by NHFG was not successful due to flows.

The fishing regulation for herring in the Connecticut River and its tributaries in Massachusetts is now 12 herring/day by hook-and-line, and the fishery is open seven days/week.

Mr. Slater reported that the *Connecticut River Atlantic Salmon Commission Management Plan for River Herring in the Connecticut River* has been revised. The revision to include alewife in the plan was approved contingent on a final one week review period. Comments should be forwarded to Mr. Slater. Subsequently, the coordinator will seek to have it posted on the Connecticut River Coordinator's Office website.

Mr. Slater indicated that he would be attending the ASMFC shad data workshop in Durham, NH on October 25-27. He has already provided Connecticut River shad data to the workshop hosts.

7. CRASC Accomplishment Report

A fact sheet and a table (below) were provided describing how the $250K Congressional add was spent in 2004. It was noted that no new funding was proposed for CRASC in the 2005 budget.

Congress allocated $250,000[8] to the Connecticut River Atlantic Salmon Commission through the Department of Interior budget in FY2004. This table accounts for those funds.

USFWS Accomplishments		
USFWS Field Station	**Activity Funded**	**Total Expended**
Pittsford NFH (VT)	Fish health management for Atlantic salmon smolt production	$10,400[1]
White River NFH (VT)	Atlantic salmon egg incubation, fry and brood stock genetics management, marking, and production	$66,500
North Attleboro NFH (MA)	Atlantic salmon brood stock maintenance, and nutrition study	$18,000[1]
Richard Cronin NSS (MA)	Atlantic sea-run and domestic salmon genetics management, maintenance, and spawning	$5,250[1]
Sunderland FRO (MA)	Fry stocking, shad and herring restoration, and field work	$13,500
Connecticut River Coordinator's Office (MA)	Website revision	$3,500
USFWS Total	**Support Restoration Program Commitments**	**$117,150**

State Accomplishments		
State Funded	**Activity Funded**	**Total Expended**
Connecticut[6]	Placing WSS in stand-by status and continuing to provide support and expertise in spawning, holding and transferring sea-run Atlantic salmon, and increasing State fry production capacity	$51,750
New Hampshire[6]	Shad and herring transfer and assessment, and salmon growth and survival evaluations	$12,000
State Total	**Production of salmon, retention of genetic variability, and fish health management**	**$63,750**

State Accomplishments		
State Funded	**Activity Funded**	**Total Expended**
Massachusetts[7]	Fishway Monitoring at Turners Falls[3] and DSI, and index site assessment	$30,000
New Hampshire[6]	Fishway monitoring at Vernon and Bellows Falls[4]	$6,000
State Total	**Improve accountability through evaluation, monitoring and assessment**	**$36,000**

Other Supportive Accomplishments		
Agency Funded	**Activity Funded**	**Total Expended**
USGS-CAFRC (MA)	Genetic evaluation of returning Atlantic salmon brood stock and emigrating smolts	$12,000[5]
USFS-GMNF (VT)	Restoration of 0.2 miles of Utley Brook, Londonderry, VT	$2,000[2]
Other Agency Total	**Genetics management and habitat restoration**	**$14,000**

[1]Partially funded out of administrative costs ($3,900) initially targeted for the Connecticut River Atlantic Salmon Commission
[2]USFS-GMNF Utley Brook habitat restoration project directly funded through the Connecticut River Coordinator's Office
[3]MAFW monitored fish passage at DSI only. NEGS monitored passage at Turners Falls at no cost to the program.
[4]NHFG monitored passage at the Vernon dam. Passage was not monitored at the Bellows Falls dam.
[5]Genetic evaluation materials funded directly through the Connecticut River Coordinator's Office
[6]Connecticut and New Hampshire activities funded through Cooperative Agreements with the USFWS
[7]Massachusetts activities funded directly through the Sunderland Fishery Resources Office
[8]$19,100 = DOI assessments and overhead

8. Other Business

Fish and Egg Requests Mr. McCormick requested 1,000 Atlantic salmon smolts and 500 parr from the Kensington State Salmon Hatchery to be collected in August 2005, and 1,000 eyed eggs from the White River National Fish Hatchery to be collected in February 2005.

Mr. Gephard requested [not more than] 35,000 eyed eggs from the White River National Fish Hatchery for the school programs in Connecticut, New Hampshire, and Vermont. Mr. Novak requested eggs for the Atlantic Salmon Egg Rearing Program in Massachusetts from the Roger Reed State Fish Hatchery.

The Technical Committee approved each of the above requests without any objections raised.

Mr. Jim Carroll, Connecticut River Salmon Association, inquired about the feasibility of obtaining eggs for the school programs in Rhode Island. Mr. Larry Lofton, North Attleboro National Fish Hatchery, responded that eggs should be available for that purpose.

Fall Salmon Returns Mr. Gephard reported that the Leesville fishway was opened to capture any salmon that might return this fall. The fishways in Connecticut are operating seven days/week and will be open until November 14. He noted that adult salmon usually return later in October.

Research Forum The Committee agreed to host the biennial research forum on February 9, 2005 at the USFWS Regional Office in Hadley, Massachusetts. The focus is on Atlantic salmon and other diadromous fish in the Connecticut River but related topics may be presented. Anyone with suggestions on topics and speakers is encouraged to contact the Coordinator.

CRASC Meeting The CRASC meeting previously scheduled for October 18 has been rescheduled for November 19 at 10:00 a.m. The location is the Discovery Center on Avenue A in Turners Falls.

Sea Lamprey Management Plan A draft Sea Lamprey Management Plan has been provided for comment to the Technical Committee. Comments should be forwarded to the Coordinator.

American Eel Management Plan The draft American Eel Management Plan should be available in January 2005 for Technical Committee review.

9. Next Technical Committee Meeting Date

It was agreed that next year's Technical Committee meetings will be scheduled after the CRASC 2005 meeting dates are established.

Meeting Attendance

Janice Rowan	USFWS
Jay McMenemy	VTFW
Steve Gephard	CTDEP
Steve Roy	USFS
John Warner	USFWS
Gabe Gries	NHFG
Caleb Slater	MAFW
Kitty Griswold	USGS
Steve McCormick	USGS
Carolina Vasconcelos	USFWS RO Intern
Ben Letcher	USGS
Carol Truebe	Lakeside Engineering
Andrea Donlon	CRWC
Dan Marchant	MAFW
Ken Simmons	MAFW
Ken Gillette	USFWS
Steve Jackson	USFWS
Paul Pajak	USFWS
Darleen Cutting	USFWS
Mickey Novak	USFWS
Jim Carroll	CRSA
Phil Herzig	USFWS
Bob Stira	NGS
Rose Fisher	NH/VT Volunteer
Warren Fisher	NH/VT Volunteer
Jennifer Griffin	Normandeau Associates